

**SYSTEMS AND METHODS FOR USING HDLC CHANNEL
CONTEXT TO SIMULTANEOUSLY PROCESS MULTIPLE
HDLC CHANNELS**

ABSTRACT OF THE DISCLOSURE

5 Systems and methods are disclosed for using High-level Data Link Control
(HDLC) channel context information to simultaneously process multiple HDLC
channels. Preferred embodiments of the present invention enable a single network
processing engine to process multiple HDLC channels. The current state of the HDLC
channel can be evaluated, stored, and restored, which means that the processing of a
10 channel can be halted, the channel state read and stored, and the state of a different
channel written to the processing engine. This allows the engine to begin processing a
new channel, and then, at a later stage, restore the state of the original channel and
resume processing.